SEQUENCE LISTING

- <110> Schulz Dr., Burkhard
- <120> DNA sequence of a protein that is similar to FKBP
- <130> SCU-001 PCT
- <140> xx
- <141> 2000-02-18
- <150> DE 199 07 598.0
- <151> 1999-02-22
- <160> 8
- <170> PatentIn Ver. 2.1
- <210> 1
- <211> 4010
- <212> DNA
- <213> Arabidopsis thaliana
- <400> 1
- gtctaagaac cttaaggaga aagagattaa gaggcagaca ttgcttgagc ttgttgatta 60
- tgttgcatca gttggtttta agtttaacga tgtttcgatg caagagttaa cgaagatggt 120
- agcggttaat ctgtttagaa cttttccttc tgcgaatcac gagagtaaaa ttcttgaaat 180
- acatgatatg gatgatgaag aaccttcttt ggagccagct tggcctcatg ttcaagttgt. 240
- gtatgagatt cttctcagat tcgtggcttc tcccatgact gatgcaaagc ttgccaagag 300
- atatattgac cattettttg tettgaaget ettagaettg tetgattetg aagateaaag 360
- agagagggaa tatctaaaaa ctattctgca tcgggtgtac gggaagttca tggtgcatcg 420
- accttacatc agaaaggcga taaacaatat cttctacaga ttcatatccg agactgaaaa 480
- gcataatggc attgcggagt tgctagagat tcttggaagt ataattaatg gttttgcttt

۲

- gcctttaaaa gaagagcaca agctcttcct tttgcgagcc ttgattcctc tccacaagcc 600
- taaatgttca tcagtctatc accaacagct ttcgtattgc attgttcagt ttgtagaaaa 660
- ggacttcaag ctcgctgata ccgttattag aggtctttta aaatattggc ctgtgactaa 720
- cagctcaaag gaagttatgt ttcttggaga gttagaagaa gtcttggaag caactcaagc 780
- cgctgagttt caacgttgta tggttccatt atcccgacaa attgctcgat gcctcaacag 840
- ttcacatttc caggttcgag tctttgacta tcatcacaac ttcatatcta tctctcttga 900
- taaagtettg tacetatata tgaagttgta etttttgttt gteaggttge tgaaagagea 960
- ttgtttctat ggaacaacga tcacataaga aacctgatca ctcagaacca taaagtgata 1020
- atgcctatag tcttcccagc tcttgagaga aacacgcgtg gacattggaa ccaagcagtt 1080
- caaagtctga ctataaacgt gaggaaagta ttatgcgaga ttgaccaagt tcttttcgac 1140
- gagtgtttag ccaaattcca agtagaagaa gtgaataaaa cagaggttaa agcgaaacgg 1200
- gaaaggacat ggcaacggtt agaagattta gctacttcaa agaccgttgt aaccaacgag 1260
- gcagtactgg ttccaagatt tgtgtcctca gtcaatctta ctacaagcag ctctgagtcc 1320
- acagggtcgt agtaggctct cgtaggttac tatgtacttg taacaaatat ttgtggtcac 1380
- tatagaaatg gttcttgaga gacgactgta taattatttt tttaaattat aatcttttgg 1440
- gtcaaattga gaatatttga tattatttta ctgaattata ataaacgccg ttaaaactct 1500

- cgttagttaa cggctgactc tgaagtgaaa actgaaaagt cgaagggtct ctttatattt 1560
- tcagaatcaa aatctgaaat ttatctctcg gtcgatccag tcttcgtgag tgacttcgac 1620
- gacgacgacg agtcacacta ctcttgagct tctcatactt cgtaagttca ctctcctctt 1680
- ctctaaattg acaaactttt tcttcgtttt ctgctattat tgacgacgag acttgatttt 1740
- gttttgaaat gaaatggttc aagtagctga cttcgactat gttcttttgg gtttttgtca 1800
- ttgaatctta cttgtctgat ttggtcgatg tttaatcaat tcaacactta aagattcaat 1860
- ttttggattg acacttgcac atttttattc agacccaggt tgatttggga aataatggat 1920
- gaatctctgg agcatcaaac tcaaacacat ggtaagtaaa ttttcataga tttaatctct 1980
- ctgaatacat atatatgact tcaatatgtt tgattggagt ttttttgttg tcccatattc 2040
- aattggatgc tttgttaaag gataaatgtc tatcaaatta tgttgactgc gttattcttt 2100
- ctaaatcata ttgtgaatct tggaacaaag catgtataca acaaatttgt tagacttaat 2160
- aactcctttt ctgtttgtta agaattgaga atgactattg gggttgacta atgcatcttt 2220
- tgtggctcca gaccaagaga gcgaaatagt tactgaagga agtgccgttg tgcatagtga 2280
- gccatctcaa gagggtaatg ttcctcctaa agttgatagt gaagctgagg tcttggatga 2340
- gaaagtcagt aagcagatta taaaggaagg tcacggttcc aaaccatcca agtactctac 2400
- atgcttttgt aagtaccctt tagctttctg ttgattggat gttgattttt cgattgcact 2460

- tgttggccta ttgctactgt ttatttgaat ctttctatct gaccaatttc atattggcca 2520
- tagtgcacta cagggcatgg accaaaaact cgcagcacaa atttgaggat acatggcatg 2580
- agcagcaacc tattgaattg gttcttggaa aaggtatgtg gctgtcgaat atgtactcta 2640
- cacctccatt tcgttagatg aatcgtcatt ggtaaatttg atgagttagc ttgtgtatta 2700
- tatgaaccca atgagatgga tatttgggag gaaaaaagat tgagttttgt atttttttg 2760
- cttcaatgct gattagccca ttttaacgtc actatacaat tttttttata aaaaagattg 2820
- tgcactaaga gtgaaatgtt gtctgtgaga cagagaaaaa agaactagcc ggtttagcca 2880
- tcggtgttgc tagcatgaag tctggtgaac gtgcgcttgt gcatgttggc tgggaattag 2940
- cttatgggaa agaaggaaac ttttcttttc ccaatgttcc acctatggca gacttgttat 3000
- atgaggtgga agttattggg tttgatgaaa caaaggaggt aagttatttc ctataccatc 3060
- atcttgtttc cttaccaaga cgactccaca tccaagcttt atcccaacct ccttgcttac 3120
- ctctctgact tagatgatgt attgaacagg gaaaagctcg cagtgatatg actgtagagg 3180
- aaaggattgg tgcagcagac agaagaaaaa tggatgggaa ttctcttttt aaggaggaga 3240
- aactggagga agccatgcaa cagtatgaaa tggttatgca tctctctcta tctctatctc 3300
- tctttccaac aattacggtc aaagtttagg ttttcaggca tacttagtga gtctgctcga 3360
- ggctcttgtg tcttctttcg gcttttgatt agtcatggtt ttgctgtttc aggccatagc 3420
- atacatgggg gacgatttta tgtttcagct gtatgggaag taccaggata tggctttagc

agttaaaaac ccatgccatc ttaacatagc agcttgcctc atcaaactaa aacgatacga 3540

tgaagcaatt ggtcactgca acattgtaag actcatcaaa ccattcattt gaagaaaatc 3600

attaaagttc atactcggtt tctcgaaatc taatcaaact caaaacctta tcaggtgttg 3660

acagaagaag agaaaaaccc aaaagcactg ttcagaagag ggaaagcaaa ggcagagcta 3720

ggacagatgg actcagcacg tgatgatttc cgaaaggcac aaaagtatgc tcctgacgac 3780

aaggcgatta gaagaggct acgagcactt gcagagcaag agaaagcctt gtaccaaaag 3840

cagaaagaaa tgtacaaagg aatattcaaa gggaaagatg aaggtggtgc taagtcaaag 3900

agcctttttt ggttgatagt gttatggcaa tggtttgttt cccttttctc ccgtatcttt 3960

cgacgccaca gagttaaagc agattaatgt atgaagaagg gttacaatta 4010

<210> 2

<211> 1270

<212> DNA

<213> Arabidopsis thaliana

<400> 2

gaaaagtcga agggtctctt tatattttca gaatcaaaat ctgaaattta tctctcggtc 60

gatccagtct tcgtgagtga cttcgacgac gacgacgagt cacactactc ttgagcttct 120

catacttcac ccaggttgat ttgggaaata atggatgaat ctctggagca tcaaactcaa 180

acacatgacc aagagagcga aatagttact gaaggaagtg ccgttgtgca tagtggccat 240

ctcaagaggg taatgttcct cctaaagttg atagtgaagc tgaggtcttg gatgagaaag 300 tcagtaagca gattataaag gaaggtcacg gttccaaacc atccaagtac tctacatgct 360 tttgtcacta cagggcatgg accaaaaact cgcagcacaa atttgaggat acatggcatg 420 agcagcaacc tattgaattg gttcttggaa aagagaaaaa agaactagcc ggtttagcca 480 tcggtgttgc tagcatgaag tctggtgaac gtgcgcttgt gcatgttggc tgggaattag cttatgggaa agaaggaaac ttttcttttc ccaatgttcc acctatggca gacttgttat 600 atgaggtgga agttattggg tttgatgaaa caaaggaggg aaaagctcgc agtgatatga 660 ctgtagagga aaggattggt gcagcagaca gaagaaaaat ggatgggaat tctcttttta 720 aggaggagaa actggaggaa gccatgcaac agtatgaaat ggccatagca tacatggggg 780 acgattttat gtttcagctg tatgggaagt accaggatat ggctttagca gttaaaaacc 900 gtcactgcaa cattgtgttg acagaagaag agaaaaaccc aaaagcactg ttcagaagag 960 ggaaagcaaa ggcagagcta ggacagatgg actcagcacg tgatgatttc cgaaaggcac 1020 aaaagtatgc tcctgacgac aaggcgatta gaagagagct acgagcactt gcagagcaag 1080 agaaagcctt gtaccaaaag cagaaagaaa tgtacaaagg aatattcaaa gggaaagatg 1140 aaggtggtgc taagtcaaag agcctttttt ggttgatagt gttatggcaa tggtttgttt 1200 cccttttctc ccgtatcttt cgacgccaca gagttaaagc agattaatgt atgaagaagg

gttacaatta 1270

<210> 3

<211> 365

<212> PRT

<213> Arabidopsis thaliana

<400> 3

Met Asp Glu Ser Leu Glu His Gln Thr Gln Thr His Asp Gln Glu Ser 1 5 10 15

Glu Ile Val Thr Glu Gly Ser Ala Val Val His Ser Glu Pro Ser Gln 20 25 30

Glu Gly Asn Val Pro Pro Lys Val Asp Ser Glu Ala Glu Val Leu Asp 35 40 45

Glu Lys Val Ser Lys Gln Ile Ile Lys Glu Gly His Gly Ser Lys Pro
50 55 60

Ser Lys Tyr Ser Thr Cys Phe Leu His Tyr Arg Ala Trp Thr Lys Asn 65 70 75 80

Ser Gln His Lys Phe Glu Asp Thr Trp His Glu Gln Gln Pro Ile Glu 85 90 95

Leu Val Leu Gly Lys Glu Lys Glu Leu Ala Gly Leu Ala Ile Gly
100 105 110

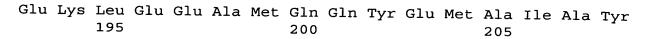
Val Ala Ser Met Lys Ser Gly Glu Arg Ala Leu Val His Val Gly Trp 115 120 125

Glu Leu Ala Tyr Gly Lys Glu Gly Asn Phe Ser Phe Pro Asn Val Pro 130 135 140

Pro Met Ala Asp Leu Leu Tyr Glu Val Glu Val Ile Gly Phe Asp Glu 145 150 155 160

Thr Lys Glu Gly Lys Ala Arg Ser Asp Met Thr Val Glu Glu Arg Ile
165 170 175

Gly Ala Ala Asp Arg Arg Lys Met Asp Gly Asn Ser Leu Phe Lys Glu 180 185 190



Met Gly Asp Asp Phe Met Phe Gln Leu Tyr Gly Lys Tyr Gln Asp Met 210 215 220

Ala Leu Arg Val Lys Asn Pro Cys His Leu Asn Ile Ala Ala Cys Leu 225 230 235 240

Ile Lys Leu Lys Arg Tyr Asp Glu Ala Ile Gly His Cys Asn Ile Val 245 250 255

Leu Thr Glu Glu Lys Asn Pro Lys Ala Leu Phe Arg Arg Gly Lys 260 265 270

Ala Lys Ala Glu Leu Gly Gln Met Asp Ser Ala Arg Asp Asp Phe Arg 275 280 285

Lys Ala Gln Lys Tyr Ala Pro Asp Asp Lys Ala Ile Arg Arg Glu Leu 290 295 300

Arg Ala Leu Ala Glu Gln Glu Lys Ala Leu Tyr Gln Lys Gln Lys Glu 305 310 315 320

Met Tyr Lys Gly Ile Phe Lys Gly Lys Asp Glu Gly Gly Ala Lys Ser 325 330 335

Lys Ser Leu Phe Trp Leu Ile Val Leu Trp Gln Trp Phe Val Ser Leu 340 345 350

Phe Ser Arg Ile Phe Arg Arg His Arg Val Lys Ala Asp 355 360 365

<210> 4

<211> 140

<212> DNA

<213> Lycopersicon esculentum

<400> 4

cttatggaaa agaaggaaac ttctctttcc ctaatgtccc acctacagct gatgtattgt 60

atgaggttga gttgattggc ttcgatgaga caggagaagg aaaagcacga ggtgacatga 120

cagtagagga gagaattggg 140

- <210> 5
- <211> 1142
- <212> DNA
- <213> Lycopersicon esculentum
- <400> 5
- tttcagataa acccaactca attttcttgg gattttgaca ctacatgcgg tgagaattac 60
- ttccaattgt cgagaagatt agtacgtggg tacttgggct gctggtgcta ttctggggtt 120
- taagaaaatt gagcaagatt tcgaataatg gctgaagtag aagaggagca gcagctgcag 180
- aattcatcag ttgaccaggg tagtactgat gaaatcatcg ctgaaggcgc ttcagttgtt 240
- cgtggagaac ttccacagga tgatgctggg ccgccaaaag ttgattcaga agtggaagtc 300
- ctccatgaaa aagtaaccaa gcaaattgtt aaagaaggcc atggtcagaa gccatcaaaa 360
- tacgcaacat gcttcgtgca ttacagggca tgggctgaaa gcacgcagca caagtttgaa 420
- gatacatggc gtgagcaaca acctcttgag ctggttatag gaaaagagag aaaggaaatg 480
- actggcctag ctattggcgt taacagcatg aaatccggtg agcgtgcttt atttcatgtt 540
- ggctgggaac tagcttatgg aaaagaagga aacttctctt tccctaatgt cccacctaca 600
- gctgatgtat tgtatgaggt tgagttgatt ggcttcgatg agacaggaga aggaaaagca 660
- cgaggtgaca tgacagtaga ggagagaatt gggacagcag atagaagaaa gatggatgga 720
- aatgctttat ttaaggaaga gaaactggag gaagctatgc aacagtatga aatggccatt 780
- gcatatatgg gagatgactt catgtttcag ctgttcggta agttccggga catggcttta 840

gctgtaaaga atccctgcca tctgaacatg gcagcctgcc tgctgaagct ccagcgatat 900

gatgaagcca ttgcacaatg tagcattgtc ctagcagaag aagaaaacaa tgtaaaagcg 960

ttgtttaggc gtggaaaggc taggtctata cttggtcaga ctgatgcagc tcgtgaggac 1020

ttccttaaag cacgtaagct tgctccacaa gataaagcca ttacaaggga attgaatttg 1080

attgcagaac acgagaaggc tgtctattag aaacaaaagg aactttacaa aggactattt 1140

gg 1142

<210> 6

<211> 320

<212> PRT

<213> Lycopersicon esculentum

<400> 6

Met Ala Glu Val Glu Glu Glu Gln Gln Leu Gln Asn Ser Ser Val Asp 1 5 10 15

Gln Gly Ser Thr Asp Glu Ile Ile Ala Glu Gly Ala Ser Val Val Arg 20 25 30

Gly Glu Leu Pro Gln Asp Asp Ala Gly Pro Pro Lys Val Asp Ser Glu 35 40 45

Val Glu Val Leu His Glu Lys Val Thr Lys Gln Ile Val Lys Glu Gly 50 55 60

His Gly Gln Lys Pro Ser Lys Tyr Ala Thr Cys Phe Val His Tyr Arg
65 70 75 80

Ala Trp Ala Glu Ser Thr Gln His Lys Phe Glu Asp Thr Trp Arg Glu
85 90 95

Gln Gln Pro Leu Glu Leu Val Ile Gly Lys Glu Arg Lys Glu Met Thr 100 105 110

Gly Leu Ala Ile Gly Val Asn Ser Met Lys Ser Gly Glu Arg Ala Leu

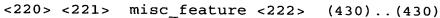
Phe His Val Gly Trp Glu Leu Ala Tyr Gly Lys Glu Gly Asn Phe Ser Phe Pro Asn Val Pro Pro Thr Ala Asp Val Leu Tyr Glu Val Glu Leu Ile Gly Phe Asp Glu Thr Gly Glu Gly Lys Ala Arg Gly Asp Met Thr Val Glu Glu Arg Ile Gly Thr Ala Asp Arg Arg Lys Met Asp Gly Asn Ala Leu Phe Lys Glu Glu Lys Leu Glu Glu Ala Met Gln Gln Tyr Glu Met Ala Ile Ala Tyr Met Gly Asp Asp Phe Met Phe Gln Leu Phe Gly Lys Phe Arg Asp Met Ala Leu Ala Val Lys Asn Pro Cys His Leu Asn Met Ala Ala Cys Leu Leu Lys Leu Gln Arg Tyr Asp Glu Ala Ile Ala Gln Cys Ser Ile Val Leu Ala Glu Glu Glu Asn Asn Val Lys Ala Leu Phe Arg Arg Gly Lys Ala Arg Ser Ile Leu Gly Gln Thr Asp Ala Ala Arg Glu Asp Phe Leu Lys Ala Arg Lys Leu Ala Pro Gln Asp Lys Ala Ile Thr Arg Glu Leu Asn Leu Ile Ala Glu His Glu Lys Ala Val Tyr

<210> 7

<211> 776

<212> DNA

<213> Zea mays



<223> g,a,c or t

<220> <221> misc_feature <222> (482)..(482)

<223> g,a,c or t

<400> 7

ttttttttt tttttccccg tagcaacagt attattacta gcataatcta aatatgaaag 60

ctgcaatata caatggcata aaaggccctt tgagctccag ttgaaagact gtatgaaact 120

atggcataat agtgaacaac atcgtataga gttcataaca actaattgat ccggaccggc 180

cgacagttct acagaaaatt caacactcct tataatacaa ggttggtcaa ttaggccacc 240

agttctacac aattttctgg taaattatcc tactcgttct tccgtttgaa catcccagcc 300

agataaagga taaatgacac cagccactgc cagaacacaa cgaggtactt tgccttcttc 360

ggtttcgctt caggacttgg cccaaagaga cctttgtaga gctccttctg cttctggtat 420

agggccttgn cttgttccgc gagcaaacgg agctcccgaa tgatctcctt gncttctggg 480

gagtacttct tcgctttgag gaaatcttcc ctcgctgatt ctgtctggcc aagttcagat 540

ttagcttttc ctcgcctgaa cagcgctttg acattacttt catcttctgt caaaacaatg 600

ctacactgcg caatagcttc atcgaatctc tttagtttga tcaggcatgc ggccatattg 660

agatggcatg gatttttcac agccaaggcc atgtctctgt actttccaaa taattgaaac 720

atgaaatcat ctcccatgta tgcaatcgcc atttcatatt gctgcatggc ctcctc 776

<210> 8

<211> 168

<212> PRT

<213> Zea mays

<220> <221> misc_feature <222> (102)..(102) <223> unknown

<220> <221> misc_feature <222> (116)..(116) <223> unknown

<400> 8

Glu Glu Ala Met Gln Gln Tyr Glu Met Ala Ile Ala Tyr Met Gly Asp 1 5 10 15

Asp Phe Met Phe Gln Leu Phe Gly Lys Tyr Arg Asp Met Ala Leu Ala 20 25 30

Val Lys Asn Pro Cys His Leu Asn Met Ala Ala Cys Leu Ile Lys Leu 35 40 45

Lys Arg Phe Asp Glu Ala Ile Ala Gln Cys Ser Ile Val Leu Thr Glu
50 55 60

Asp Glu Ser Asn Val Lys Ala Leu Phe Arg Arg Gly Lys Ala Lys Ser 65 70 75 80

Glu Leu Gly Gln Thr Glu Ser Ala Arg Glu Asp Phe Leu Lys Ala Lys
85 90 95

Lys Tyr Ser Pro Glu Xaa Lys Glu Ile Ile Arg Glu Leu Arg Leu Leu 100 105 110

Ala Glu Gln Xaa Lys Ala Leu Tyr Gln Lys Gln Lys Glu Leu Tyr Lys 115 120 125

Gly Leu Phe Gly Pro Ser Pro Glu Ala Lys Pro Lys Lys Ala Lys Tyr 130 135 140

Leu Val Val Phe Trp Gln Trp Leu Val Ser Phe Ile Leu Tyr Leu Ala 145 150 155 160

Gly Met Phe Lys Arg Lys Asn Glu 165